

Advanced Rhythm Studies

I. Odd Time & Mixed Meter

A. 2:3

1. play all subdivisions, accenting 1 bar of 2 then 1 bar of 3 back and forth
2. one hand plays subdivisions while other hand accents 2 then 3; then switch hands
3. alternate hands on each subdivision, accent 2 then 3 and notice which hands get the accents for each

B. 5/4 time

1. 2 + 3
2. 3 + 2
3. unaccented 5
4. specific rhythm of 1 & a 2 3 4 & 5

C. 7/4 time

1. 3 + 4
2. 4 + 3

D. 9/8 time

Rhythms from Bartok's Sonata for Two Pianos and Percussion

9/8 Takadimi Taka Takida Taka Takida Takadimi taka Taka Taka Takida Takida Takida Takida Takadimitakida Taka
takiDa Takadimitaka ka Taka Taka Taka Ta Ka ka Taka Taka Taka Taka Taka Taka Takadimi ka
takiDa Takadimi Ta Ka ta Ka Taka Ta Ki da Ta Ka ta Ki Da Ta Ka di mi Ta ka Taka takida Takadimi
taka Takida Takadimi Taka Taka Taka Takida ka Taka Takadimitaka Takida takida takida

II. Polyrhythms

A. Ways To Practice (expressed as N:B where B = beats, N = notes, M = multiple i.e. BxN)

1. one hand taps M, other alternates between N & B

2. alternate hands on each subdivision; accent in groups of N then groups of B; notice which hands get which accents
3. with foot tapping first beat of M, imagine the other subdivisions; clap in groups of B then groups on N
4. while foot tapping first beat of M, one hand taps N while other taps B
5. write out B beats each of with N subdivisions, then underline first of each group of B subdivisions, as in:

5:4

1 2 3 4 5 2 2 3 4 5 3 2 3 4 5 **4** 2 3 4 5

6. use English phrase that can be used to hear the composite rhythm, as in:

2:3

Hot Cup Of Tea
h c o t

(3) 1-2-3-
h c t

(2) 1--2--
h o

composite:
h-cot-

3:4

Pass The Milk And Butt er
p t m a b e

(4) 1--2--3--4--
p t a e

(3) 1---2---3---
p m b

composite:
p--tm-a-be--

5:4

Find A House That I Can Live In
f a h t i c l i

(5) 1---2---3---4---5---
f a t c i

(4) 1----2----3----4----
f h i l

composite:

f---ah--t-i-c--li---

5:7

Pass The Salt And Pep Per The Food Is Taste Less
p t s a p p t f i t l

(7) 1----2----3----4----5----6----7----
p t a p t i l

(5) 1-----2-----3-----4-----5-----
p s p f t

composite:

p----t-s--a---pp----tf---i--t-l----

7. use konnakol syllables, as in:

5:4

(5) TakadimiTakadimiTakadimiTakadimiTakadimi

(4) TadigenakaTadigenakaTadigenakaTadigenaka

composite:

Ta-----kaTa----na--Ta--ge----Tadi-----

B. 2 and 3

1. 2:3 as 1 2 2 2 3 2

2. 3:2 as 1 2 3 2 2 3

3. composite rhythm: 1-2&3-

C. 3 and 4

1. 3:4 as 1 2 3 2 2 3 3 2 3 4 2 3

2. 4:3 as 1 2 3 4 2 2 3 4 3 2 3 4

3. Composite rhythm: 1--2&3-a4--

D. 4 and 5

1. 4:5 as 1 2 3 4 **2** 2 3 4 **3** 2 3 4 **4** 2 3 4 **5** 2 3 4
2. 5:4 as 1 2 3 4 5 **2** 2 3 4 5 **3** 2 3 4 5 **4** 2 3 4 5
3. composite rhythm: 1---2e--3-&4--a5---

E. 2 and 5

1. 2:5 as 1 2 2 2 **3** 2 **4** 2 **5** 2
2. 5:2 as 1 2 3 4 5 **2** 2 3 4 5
3. Composite rhythm: 1-2-3&4-5-

F. 3 and 5

1. 3:5 as 1 2 3 **2** 2 3 **3** 2 3 **4** 2 3 **5** 2 3
2. 5:3 as 1 2 3 4 5 **2** 2 3 4 5 **3** 2 3 4 5
3. Composite rhythm: 1--2-a3--4&5--

G. 4 and 7

1. 4:7 as 1 2 3 4 **2** 2 3 4 **3** 2 3 4 **4** 2 3 4 **5** 2 3 4 **6** 2 3 4 **7** 2 3 4
2. 7:5 as 1 2 3 4 5 6 7 **2** 2 3 4 5 6 7 **3** 2 3 4 5 6 7 **4** 2 3 4 5 6 7
3. Composite rhythm: 1---2---a3---4-&5---6a--7---

H. 2 and 7

1. 2:7 as 1 2 2 2 **3** 2 **4** 2 **5** 2 **6** 2 **7** 2
2. 7:2 as 1 2 3 4 5 6 7 **2** 2 3 4 5 6 7
3. composite rhythm: 1-2-3-4&5-6-7-

I. 3 and 7

1. 3:7 as 1 2 3 **2** 2 3 **3** 2 3 **4** 2 3 **5** 2 3 **6** 2 3 **7** 2 3
2. 7:3 as 1 2 3 4 5 6 7 **2** 2 3 4 5 6 7 **3** 2 3 4 5 6 7
3. composite rhythm: 1--2--3&4--5-a6--7--

J. Polyrhythms Involving 9

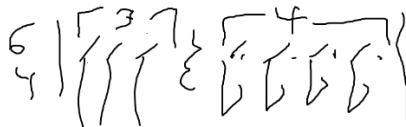
1. 9:4 as 3:4 with each of the groups of 3 subdivided into groups of 3
2. 9:5 as 3:5 with each of the groups of 3 subdivided into groups of 3
3. 4:9
 - a. start with 9 as 3+3+3
 - b. subdivide each 3 into 4 subdivisions for a total of 12 per bar
 - c. re-group those 12 as 4 groups of 3
4. 2:9, 5:9, 7:9 as 2:3, 5:3, 7:3 using above principle

K. Table of Time Exercises

1. 1, 2, 3, 4, 5, 6, 7, 8, 9 subdivisions per beat in a row with 1 beat in between
2. 1, 2, 3, 4, 5, 6, 7, 8, 9 subdivisions per beat in a row with no beat in between

L. Polyrhythms Over Parts of the Bar

1. first two beats of this example is 2:3, then 1 beat rest, then 4:3 over last 3 beats



2. approximate when have many polyrhythms in a row at faster tempos, as in Elliott Carter's String Quartet #2, bars 588-593
3. a polyrhythm can occur within a polyrhythm such as in Frank Zappa's "The Black Page," where bar 15 is 3 half-note triplets, first one as 1-2&, second as 1-3-567, third in two halves: first in 4 then in 5.

M. Changing Polyrhythms

1. listen to click at 35 to 80 bpm
2. alternate between playing first then second number in each of the following pairs: 2-3, 2-5, 2-7, 2-9, 3-4, 3-7, 3-8, 4-5, 4-7, 4-9, 5-6, 5-7, 5-8, 5-9, 6-7, 6-8, 6-9, 7-8, 7-9, 8-9

3. as above, do the same routine with 3 pairs: 2-3-4, 2-3-5, 2-5-6, 2-7-9, 3-4-5, 3-4-7, 3-5-6, 3-5-7, 3-5-8, 3-5-9, 4-5-6, 4-5-7, 4-5-8, 4-5-9, 4-7-8, 4-7-9, 5-6-7, 6-7-8, 7-8-9

III. Polyrhythms in Written Music

A. Some rhythms are played more smoothly when felt as polyrhythm. For example, |1 (2)&(3 4)| can be felt as 2:3 over first 3 beats, as in |1 -(2)x(3)-(4)- | where 1 and x are the attacks.

B. A grouping can create a new pulse that acts as a polyrhythm. For example, |(1) 2 (3)&(4) | 1 (2 3 4) | could carry on into: |(1) 2 (3)&(4) | 1 (2)&(3) 4) |

C. Syncopated accents can imply polyrhythms as in violin part in Porgy & Bess Overture: |1 e & a 2 e & a 3 e & a 4 e & a|

x x x x x

and

|1 e & a 2 e & a 3 e & a 4 e & a|1 e & a 2 e & a 3 e & a 4 e & a|
x x x x x x x x x x

D. You can have groupings within groupings, as in the following where h means a higher note and l means a lower note, creating 4 pairs within cycles of 3 sixteenth notes over 3 beats:

|1 e & a 2 e & a 3 e & a 4 e & a|1 e & a 2 e & a 3 e & a 4 e & a|
h l h l h l h l

or

|1 e & a 2 e & a 3 e & a 4 e & a|1 e & a 2 e & a 3 e & a 4 e & a|
h l h l h l h l

IV. Performing Complex Rhythms

A. Feel the phrase and how it leads to the next one, not beat-by-beat or it'll sound stiff; the feel comes from the phrasing

B. Record a 12-bar blues bass line for 4 minutes each at 40, 48, 60, 72, 88, 108, 120, 132, 156, 160, and 208 with a few seconds between each tempo; play along with it paying attention to relaxation and flow, not technique